

What is claimed is:

1. An interleaving method for correcting short burst errors in a digital versatile disk (DVD), the method comprising the steps of:

merging a plurality of error correction code (ECC) blocks, each having a predetermined size, in a horizontal direction, to form a merged ECC block; and

storing the merged ECC block in a buffer in units of a predetermined number of rows and interleaving the ECC block in units of a predetermined number of bytes in accordance with a predetermined interleaving rule.

2. The interleaving method of claim 1, wherein when interleaving is performed such that every two ECC blocks are merged in a horizontal direction to form a new ECC block and the merged ECC blocks are grouped in units of two lines for interleaving, the predetermined interleaving rule satisfies the following formulae:

1) when $t=0$, $k=2m$, where $m=2t$

2) when $t=1, 2, \dots, 22$, $k=2m$, where $m=2t$

$$k=2(m-1)+94, \text{ where } m=2t-1$$

3) when $t=23, 24, \dots, 45$, $k=2(m-45)+1$, where $m=2t-1$

$$k=2(m-46)+93, \text{ where } m=2t$$

4) when $t=46, 47, \dots, 68$, $k=2(m-92)+2$, where $m=2t$

$$k=2(m-91)+92, \text{ where } m=2t-1$$

5) when $t=69, 70, \dots, 90$, $k=2(m-137)+3$, where $m=2t-1$

$$k=2(m-138)+95, \text{ where } m=2t$$

6) when $t=91$, $k=2(m-137)+3$, where $m=2t-1$.

wherein reference symbol 't' used in six equations of the above formulae, denotes a positive integer of greater than or equal to 91 inclusive of 0, m is let to be the index assigned before interleaving and k is let to be the index assigned after interleaving.

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